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ABSTRACT

This study compared outcomes from undergraduate subjects (N=21) who had attended seminars in the wholetheme instructional approach with controls (N=21) who attended a seminar on the writing process. The wholetheme approach of Asghar Iran-Nejad emphasizes thematic, nondirectional, and intuitive teaching. The study was designed to determine if subjects who attended seminars on the wholetheme approach to authentic teaching were: (1) better able to differentiate between teacher-teller and teacher-facilitator; (2) practiced more authentic teaching; (3) became more personally and generally efficacious, and (4) were more willing to address diversity in the classroom than those students who attended seminars on the writing process. Subjects completed four survey instruments, including measurements of authentic teaching and teacher efficacy as well as an open-ended questionnaire. Subjects who participated in wholetheme seminars were found to be more conversant in wholetheme terminology and concepts, and posttest measures found them significantly more likely to address diversity in the classroom. Posttest ratings of teacher efficacy were significantly higher for seminar participants, as were measures of authentic teaching. The study demonstrated that seminars with an emphasis on wholetheme teaching would foster reorganization of knowledge and encourage future teachers to examine and reflect upon their role. The research helps support the premise that seminars and supervision centered on the wholetheme approach can assist preservice teachers to create authentic learning environments, to increase personal and general confidence in their teaching, and to change beliefs about inclusive education. (Contains 22 references.) (PB)

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Authentic Teaching

From a

Wholetheme Prospective

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Paper presented at the Annual Meeting

of the Mid-South Educational Research Association

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Authentic Teaching From A Wholetheme Prospective

A major focus for educators today is how to teach the children of America. Over the past decade, debate has centered on the role of the school in enhancing students' capabilities so that they might realize their full potential and contribute their best to society (Berman, 1993; Haberman, 1990; Sleeter, 1993). Perhaps a different verse, but it is the same song that has haunted the minds of educators throughout the world and accross the centuries. Great thinkers like Plato, Aristotle, Luther, Rousseau, and Dewey posited that children should be taught to think and to make decisions. There were other leaders of theology, psychology, and industry who argued that the focus on individuality must be abandoned in order to design a system which could accomodate the masses while it simultaneously trained their minds (Levin, 1991).

At the onset of this century those dicotomous philosophies were termed Progressive and Traditional (Zilverman, 1993). The child-centered movement was commonly referred to as Progressive and the schools managed like factories were generally called Traditional. As the curtain closes on this century, we see analogous philosophies portrayed. There are still traditional teachers who view education through the lenses of a lockstep curriculum complete with behaviorial objectives and standardized tests and there are still reformers who tenaciously hold the idea that students learn through experience (Iran-Nejad, 1993; Prawat, 1992). Just like their counterparts from the past, reformers today are committed to helping students learn, even though they often have different theories about how that might be accomplished (Jackson, 1992).

Although there has never been, nor will there ever be a pure remedy for educational woes, some suggest that if there were, that panacea might be authentic teaching (Resnick & Klopfer, 1989b; Rovegno, 1993). Newmann

(1991) defines authentic teaching as instruction that is significant and meaningful and distinguishes it from that which is presented through a conduit. It is beyond the installation or evaluation of subject matter; it is more than completing workbooks or doing assignments with little excitement, commitment, or self-satisfaction (Goodlad, 1990). Authentic teaching is not another cookie cutter program; it does not begin after the three R's have been recited, nor is it reserved for the capstone. Those in the authentic learning camp believe that students' accumulated knowledge is not as important as their ability to think, so they promote teaching generative knowledge (Aldridge, Kuby, & Strevy, 1992; Resnick & Klopfer, 1989a). According to Newmann (1992) authentic teaching is about student engagement. It is the fruit of the involvement that occurs when subject matter meets the attention of the mind.

Perhaps the authentic teaching movement is an attempt to continue the educational philosophy of Dewey which insists that learning does not occur as a succession of subjects but as a result of interest and experience (Dewey, 1897; Lay-Dopyera & Dopyera, 1993). It is also in concert with the views of Piaget and Vygotsgy who make it clear that children learn through direct experience and social interaction (Lay-Dopyera & Dopyera, 1993). As leaders in the past spoke of learning in terms of involvement and intrapersonal relationships, so do current reformers who advocate authentic teaching (Costa, 1991; McTighe & Clemson, 1993; Newmann & Wehlage, 1993; Resnick & Klopfer, 1989b). It may be concluded then that authentic learning theorists attempt to account not only for the attention of the mind, but others' influence over it.

Yet, Iran-Nejad (1990) cautions that exclusive emphasis on active thinking and cooperative learning, although intended to be productive and generate creative ideas, may actually limit learning. He believes learning occurs in addition to concentration and connections (Iran-Nejad, 1992). For if individuals

believe they can learn only when they are consciously paying attention or in active pursuit of ideas, they are less likely to experience spontaneous thought, or insight (Iran-Nejad & Chissom, 1992). In addition to one active executor of thought, there are simultaneous dynamic forces, continuously alert and functioning (Iran-Nejad, McKeachie, & Berliner, 1990). Iran-Nejad (1993) postulates that thinking extends from the brain to the mind--from dynamic self-regulation--as when inspiration occurs or a solution jumps out of the blue--to active self-regulation or conscious attention. In other words, learning transpires even without conscious attention to the academic goal of learning..

Iran-Nejad refers to this approach to authentic learning as wholetheme. The wholetheme approach allows the brain and mind to work in a single context where nothing extends from one thing to another as it does in the sequential approach of traditional teaching or even when there is conscientious involvement (Iran-Nejad, 1993). In the wholetheme approach all influences are thematic or nondirectional. This wholetheme theory of dynamic self-regulation accounts for why people are able to function well in compound situations, juggling thoughts proficiently. It explains why it is possible to wake up in the morning, with a solution to a problem that had none the night before, and most importantly, why experienced teachers are able to think so well in the midst of classroom complexity (Iran-Nejad, 1990).

Encouraging students to tune into their intuitions may enable the teacher to facilitate even greater learning experiences (Iran-Nejad, 1993). As teachers capitalize on the wholetheme approach to authentic teaching they may discover that they will be better able to plan for the kind of classroom which is inviting for all children. Wholetheme teaching creates an environment that frees students from drill and practice so that they can make sense of subject matter. They can learn to trust their own judgement, to solve problems, and to contribute to their

community in valuable ways. As teachers foster appreciation for human diversity they may well become more sure of their own ability to cultivate student growth and more confident in the power of the educational system as well.

Design

The study was designed to determine if subjects who attended seminars focusing on the wholetheme approach to authentic teaching: (a) were better able to differentiate between teacher-teller and teacher-facilitator, (b) practiced more authentic teaching, (c) became more personally and generally efficacious, and (d) were more willing to address diversity in classroom than those students in the control group who attended seminars focusing on the writing process. The study further considered whether a subset of the experimental group who additionally received supervision focused on the wholetheme approach to teaching would more articulately define authentic teaching, practice it to a greater extent, report themselves as more efficacious, and report themselves more willing to meet diversity in the classroom than those students who only attended the seminars.

In order to determine how the seminars influenced the experimental and control groups four instruments were administered: (a) an open-ended questionnaire, (b) the Five Standards of Authentic Teaching, (c) The Teacher Efficacy Scale, and (d) the Teacher Placement Opinion Form.

The open-ended questionnaire was developed and field tested during a pilot study for the research conducted for this study. It was designed to measure how members of each seminar would distinguish between teacher-teller (traditional teacher) and teacher-facilitator (authentic teacher).

The Five Standards of Authentic Teaching is a Likert-type scale which estimates levels of authentic instruction for each of five standards--higher-order thinking, depth of knowledge, connectedness to the world, substantive conversation, and social support for student achievement. The authors of the

scale, Newmann & Wehlage (1993), are aware that, even with innovative strategies, adjunct learning environments, and hands-on materials students can still be victims of inauthentic schooling. The first scale measured the degree to which students use higher-order thinking as compared with lower order thinking. The second scale measured the degree to which knowledge was superfluous or significant. The third scale measured the degree to which learning was connected to the world beyond the classroom. In a class with no value beyond the classroom, activities are important for success only in school, and therefore are not connected. The fourth scale measured the degree of substantive conversation, in other words, the extent of talking to learn and to understand. The last scale measured the degree of social support for student achievement, where a (5) represented high expectations, respect, and inclusion of all students in the learning process.

The Teacher Efficacy Scale is a Likert-type scale which measures two categories, One category is identified as personal teaching efficacy and revealed how the subjects regarded their own ability to impact student learning. The other facet of the instrument measures how subjects regard the ability of schools in general to affect student achievement.

The Teacher Placement Opinion Form measures social support for student achievement with a Likert-type scale. It measured the subjects' attitudes toward the inclusion of a diverse population into the regular education classroom.

Procedure

The sample consisted of 42 undergraduate students who were randomly enrolled in one of two sections of Methods Block of Elementary Education Program at the University of Alabama. Each section became a treatment group consisting of 21 students and each section attended seminars. The experimental group's seminars focused on wholetheme teaching and the control group's on the

Table 1

SCHEDULE OF TOPICS FOR WHOLETHEME GROUP OF 21 EXPERIMENTAL SUBJECTS	SCHEDULE OF TOPICS FOR WRITING PROCESS GROUP OF 21 CONTROL SUBJECTS
Seminar 1. Classrooms are comprised of diversity	Seminar 1. Using Nursery Rhymes to Teach Prewriting Skills
Seminar 2. Belief systems impact perceptions: Teaching heterogeneous classrooms	Seminar 2. A Recipe for Literature Based Reading/Writing Instruction
Seminar 3. A wholetheme approach to authentic teaching: Contrasting wholetheme with traditional teaching	Seminar 3. Shared Stories
Seminar 4. A wholetheme approach to authentic teaching: Insuring learning for all	Seminar 4. Using Literature to Enhance Writing
Seminar 5. A wholetheme approach to authentic teaching: A wholetheme allows the complex to be understood readily	Seminar 5. The "Write" Way to Dress
Seminar 6. A wholetheme approach to authentic teaching: Coordinating separate subjects into a whole	Seminar 6. The Integration of Social Studies and Music with Writing
Seminar 7. A wholetheme approach to authentic teaching: Discovering learning is greater than "games"	Seminar 7. Using Literature to Teach Reading Skills and Foster Writing
Seminar 8. A wholetheme approach to authentic teaching: Connecting new information to prior experience	Seminar 8. Using Newspaper Headlines to Stimulate Creative Thinking and to Develop Inference Skills
Seminar 9. Preservice teachers testify: All children can learn	Seminar 9. Crawling Across the Curriculum

writing process. The titles of the seminars for each group are presented in Table 1. In addition to attending the seminars, a subset of experimental subjects were supervised with a wholetheme approach to teaching. This was an attempt to find out if the preservice teachers would be more inclined toward a wholetheme philosophy if they received supervision which targeted this type of authentic teaching in addition to attending the seminars. In order to determine the effects of the seminars and supervision all members of the study were given four pre and posttests at the onset and close of the field experience.

Results

The open-ended questionnaire

Analysis of the informal questionnaires was undertaken to compare experimental and control groups' descriptions of teacher-teller and teacher-mediator before and after the seminars. The pre and postquestionnaires were systematically coded by three trained raters and inter-rater percent agreement of various descriptions of authentic teaching were then calculated. The average inter-rater percent agreement was 91.7%.

Results of the informal questionnaire revealed at pretest that 100% of both groups clearly defined "teacher-teller" in the traditional terms of "lectures," "tells," "controls," "drills," and "does not use cooperative learning." At posttest 27.3% of the experimental group added to their description that "traditional teachers are afraid to allow students freedom to engage in conversation or to explore their environment because they might lose control of the classroom." At posttest 45% of the control group did not attempt to define "teacher-teller." On the pretest both groups again used similar terminology (albeit in different proportions) to describe "teacher-facilitator." Both groups used words like "coaches," "motivates," "encourages," "follows up," "listens," "plays games," "experiments," and "uses manipulatives and cooperative groups." Just as the

experimental group enhanced their definition of teacher-teller on the posttest, so did they enrich the definition of teacher-facilitator at posttest. Eighty-one percent added that a teacher-mediator *involves* students in their own learning, *applies* knowledge to life situations, *picks up* on the interest of the child, *seizes* the teachable moment, and/or *expands* students' personal stories to include new knowledge. At posttest only 10% of the control group (compared to 81% of the experimental group) equated teacher-facilitator with the concept of wholetheme teaching. And again, just as nearly half of the control group did not attempt to define teacher-teller at the posttest, neither did a similar percentage define teacher-facilitator at posttest. Table 2 depicts the data just described.

Table2
Comparison Between Experimental And Control Group's Descriptions Of Traditional And Authentic Teaching

		Experimental	Control
Description of Teacher-teller			
Lectures, tells, controls, drills, and does not use cooperative learning			
	Prequestionnaire	100.0%	100.0%
	Postquestionnaire	72.7%	55.0%
Is afraid of noise			
	Prequestionnaire	00.0%	00.0%
	Postquestionnaire	27.3%	00.0%
No response			
	Prequestionnaire	00.0%	00.0%
	Postquestionnaire	00.0%	45.0%

(table continues)

Description of Teacher-facilitator

Coaches, motivates, encourages		
Prequestionnaire	31.8%	20.0%
Postquestionnaire	18.2%	15.0%
Follows up on student work		
Prequestionnaire	22.7%	25.0%
Postquestionnaire	00.0%	00.0%
Listens to, includes students in decisions		
Prequestionnaire	18.2%	15.0%
Postquestionnaire	00.0%	00.0%
Fun, games, experiments, manipulatives, groups, field trips, hands-on		
Prequestionnaire	27.3%	40.0%
Postquestionnaire	00.0%	25.0%
Involves students in their own learning, applies new knowledge to life situations, picks up on the interest of the child, seizes the teachable moment, expands students' personal stories to include new knowledge, leads students to rethink what they already know, and gives students learning experiences to carry with them always		
Prequestionnaire	00.0%	00.0%
Postquestionnaire	81.8%	10.0%
No response		
Prequestionnaire	00.0%	00.0%
Postquestionnaire	00.0%	50.0%

Table 4

Analysis Of Variance Summary Tables For Authentic Teaching Standard 2

Source	DF	SS	MS	F	P > F
Group	1	25.04	25.04	30.33	.0001
Subjects (group)	40	33.02	0.83		
Test	1	20.01	20.01	34.64	.0001
Group x Test	1	16.38	16.38	28.34	.0001
Subjects x Test(Group)	40	23.11	.57		

Table 5

Analysis Of Variance Summary Tables For Authentic Teaching Standard 3

Source	DF	SS	MS	F	P > F
Group	1	13.72	13.72	10.92	.0020
Subjects (group)	40	50.24	1.26		
Test	1	21.00	21.00	21.59	.0001
Group x Test	1	19.09	19.09	19.63	.0001
Subjects x Test(Group)	40	38.90	0.97		

Table 6

Analysis Of Variance Summary Tables For Authentic Teaching Standard 4

Source	DF	SS	MS	F	P > F
Group	1	17.93	17.93	21.08	.0001
Subjects (group)	40	34.03	0.85		
Test	1	17.19	17.19	21.93	.0001
Group x Test	1	25.46	25.46	32.48	.0001
Subjects x Test(Group)	40	31.35	0.78		

Table 7

Analysis Of Variance Summary Tables For Authentic Teaching Standard 5

Source	DF	SS	MS	F	P > F
Group	1	7.31	7.31	13.37	.0007
Subjects (group)	40	21,88	0.55		
Test	1	18.11	18.11	21.12	.0001
Group x Test	1	13.11	13.11	15.29	.0003
Subjects x Test(Group)	40	34.29	0.86		

The Experimental Group's pretest observation mean score for Standard 1 was 1.86 and the Control Group's was 1.80. For standard two the experimental and control groups' pretest mean scores were 1.90 and 1.70, standard three pretest mean scores were 1.95 and 2.10, standard four pretest mean scores were 1.77 and 1.95, and standard five pretest mean scores were 1.95 and 2.10. The corresponding mean scores for the posttest observations were 3.68 and 2.00, 3.72 and 1.75, 3.86 and 2.10, 3.73 and 1.70, and 3.86 and 2.10 (see Table 8).

Plotted mean scores illustrate a significant interaction between control and experimental groups on all five standards: $p < .0001$, .0001, .0001, .0001, and .0003 respectively (see Figures 1, 2, 3, 4, and 5). Each figure shows the teaching performance of the two groups of students on each standard. The figures show the difference in performance from first to last observation for every standard. The slope of each line displays the magnitude of increase for the experimental group and compares that increase to the performance of the control group. On every standard the experimental group showed a greater increase in performance level than did the control group.

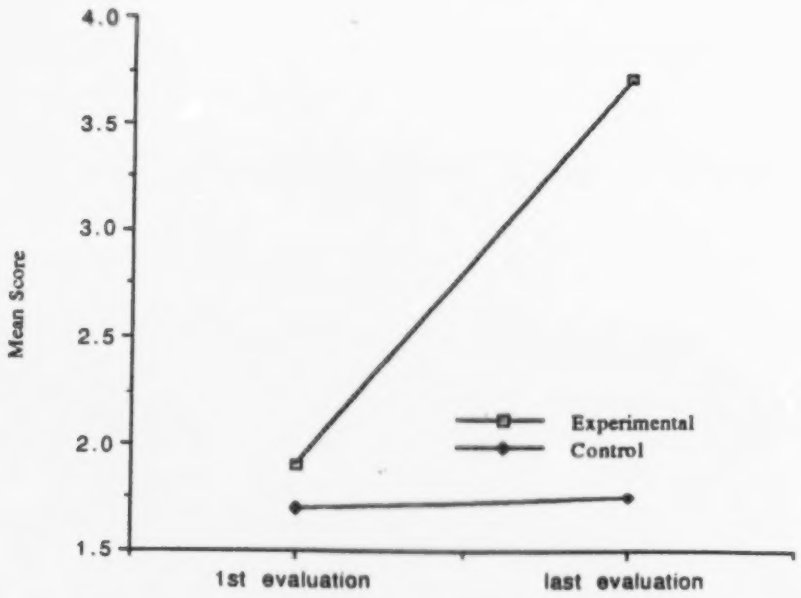

Figure 2. The interaction between test time and treatment group for Standard 2 of the Authentic Teaching Scale.

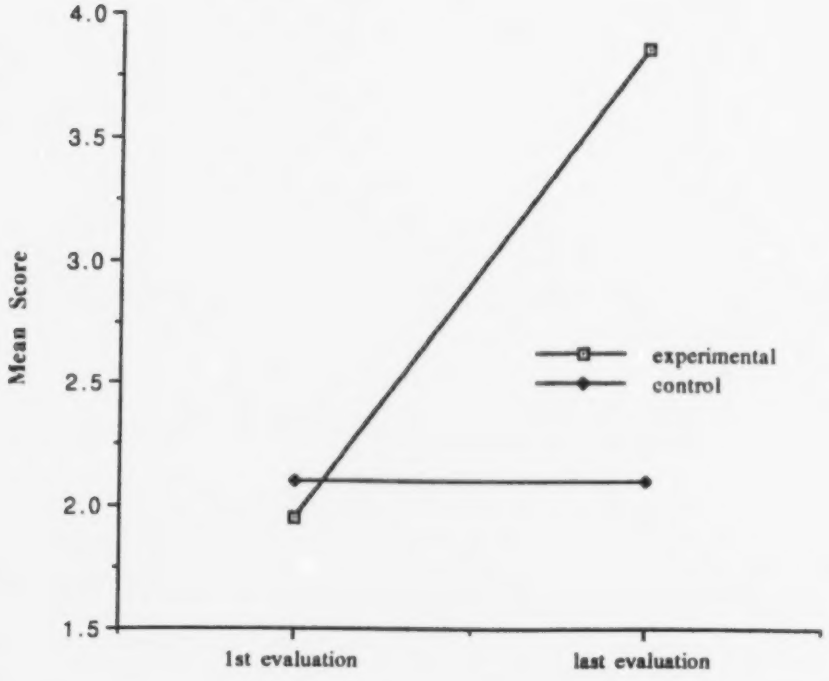

Figure 3. The interaction between test time and treatment group for Standard 3 of the Authentic Teaching Scale.

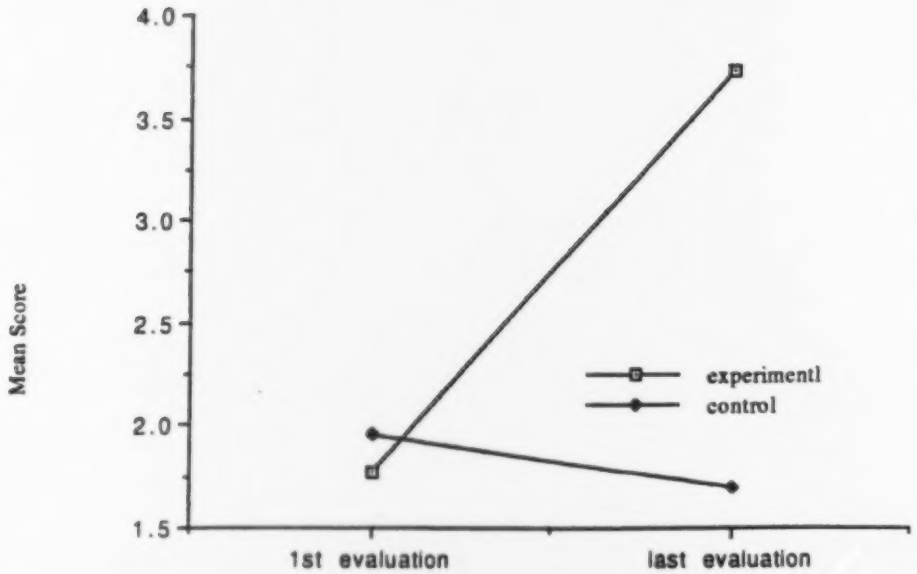

Figure 4. The interaction between test time and treatment group for Standard 4 of the Authentic Teaching Scale.

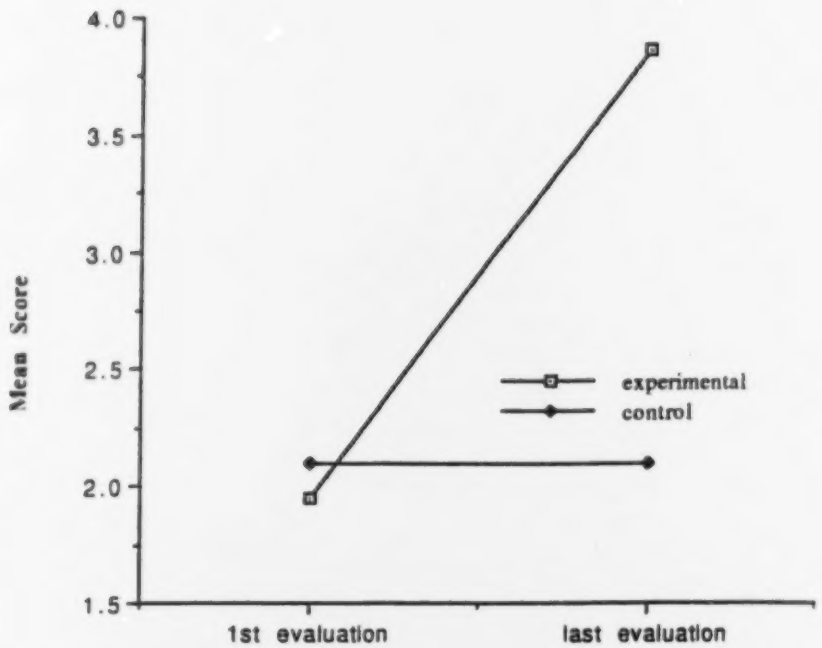

Figure 5. The interaction between test time and treatment group for Standard 5 of the Authentic Teaching Scale.

Personal Efficacy Scale

A two-way repeated measures analysis of variance with one between factor (seminars, the wholetheme approach to teaching and the writing process) and one repeated measure (time, pre and posttest scores) was used to analyze data for each of the two components of the Teacher Efficacy Scale. According to the authors of this Likert-type scale, the higher the total score for the personal component of the scale the higher the teacher's sense of personal teaching efficacy. In contrast, the lower the total score of the general teaching efficacy component, the higher the teacher's sense of general teaching efficacy. The highest score possible for the personal component was 54 and the lowest possible was 9. For the general component the lowest score possible was 7 and the highest 42, with one item negatively loaded. When submitted to statistical analysis with the SAS program for ANOVA, the interaction proved to be statistically significant at the .0001 level between the preposttest scores of the experimental group and between the post scores of the experimental and control groups for both the general and personal components of efficacy (see Table 9). As shown in Table 10, the personal efficacy pretest means of the experimental and control group were 20.22 and 20.80 respectively; the general pretest means of the same two groups were 32.9 and 32.3. According to both of these components of teaching efficacy, there was no significant difference between the groups at pretest. There was a significant difference at posttest. The interactions between experimental and control groups are plotted in Figures 6 and 7. The slope of each line in the figures displays the magnitude of increase for the experimental group and compares that increase to the personal and general efficacy scores of the control group. Personal efficacy lines show a positive slope illustrating increase, while general efficacy lines show a negative slope, also illustrating increase.

Table9

Analysis Of Variance Summary Table For The Teacher Efficacy Scale:

Personal Efficacy Component Of The Teacher Efficacy Scale

Source	DF	SS	MS	F	P > F
Group	1	2139.28	2139.28	73.51	.0001
Subjects (group)	40	1164.01	29.10		
Test	1	6274.71	6274.71	657.68	.0001
Group x Test	1	2388.66	2388.66	250.37	.0001
Subjects x Test(Group)	40	381.63	9.54		

General Efficacy Component Of The Teacher Efficacy Scale

Source	DF	SS	MS	F	P > F
Group	1	1416.66	1416.66	29.48	.0001
Subjects (group)	40	1921.88	48.05		
Test	1	2754.30	2754.30	197.83	.0001
Group x Test	1	1634.31	1634.31	117.39	.0001
Subjects x Test(Group)	40	556.90	13.92		

Table 10

Means And Standard Deviations For Pre And Posttests Of The Teacher Efficacy Scale

General Efficacy Component							
Experimental Group				Control Group			
Pretest		Posttest		Pretest		Posttest	
$\bar{X}$	S	$\bar{X}$	S	$\bar{X}$	S	$\bar{X}$	S
32.9	5.98	13.04	2.24	32.3	6.00	30.10	7.02

Personal Efficacy Component							
Experimental Group				Control Group			
Pretest		Posttest		Pretest		Posttest	
$\bar{X}$	S	$\bar{X}$	S	$\bar{X}$	S	$\bar{X}$	S
20.22	3.01	47.68	4.81	20.80	3.22	26.90	5.94

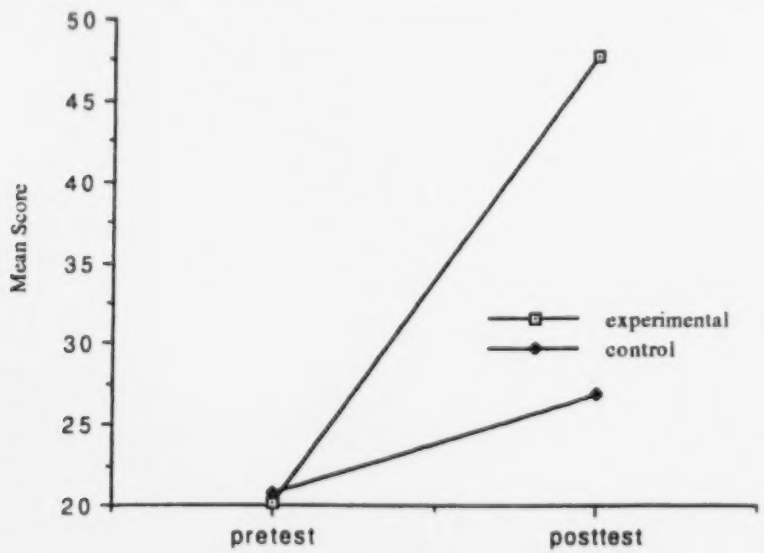

Figure 6. The interaction between test time and treatment group for the personal factor of the Teacher Efficacy Scale.

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Teacher Placement Opinion Form

As was used with the Five Standards of Authentic Teaching and the Teacher Efficacy Scale, a two-way repeated measures ANOVA with one between factor and one repeated measure was used to analyze the scores on the Teacher Placement Opinion Form. This 30 item measure was also a Likert-type scale. A "1" indicated total inclusion and a "6" indicated a special school. The lower the total score for this test the more willing the teacher to address diversity in the classroom. Results (see Table 11) indicated a significant interaction between control and experimental groups ($p < .0001$) and are displayed on Figure 8. As recorded in Table 12, the Teacher Placement Opinion Form pretest means of the experimental and control group were 71.77 and 73.30, respectively; the posttest means of the two groups were 42.64 and 71.25. There was no significant difference between the groups at pretest, but there was a difference at posttest.

Table 11

Analysis Of Variance Summary Tables For The Teacher Placement Opinion Form

Source	DF	SS	MS	F	P < F
Group	1	4758.68	4758.68	30.58	.0001
Subjects (group)	40	6224.13	155.60		
Test	1	5537.19	5537.19	216.13	.0001
Group x Test	1	3843.04	3843.04	150.01	.0001
Subjects x Test(Group)	40	1024.77	25.62		

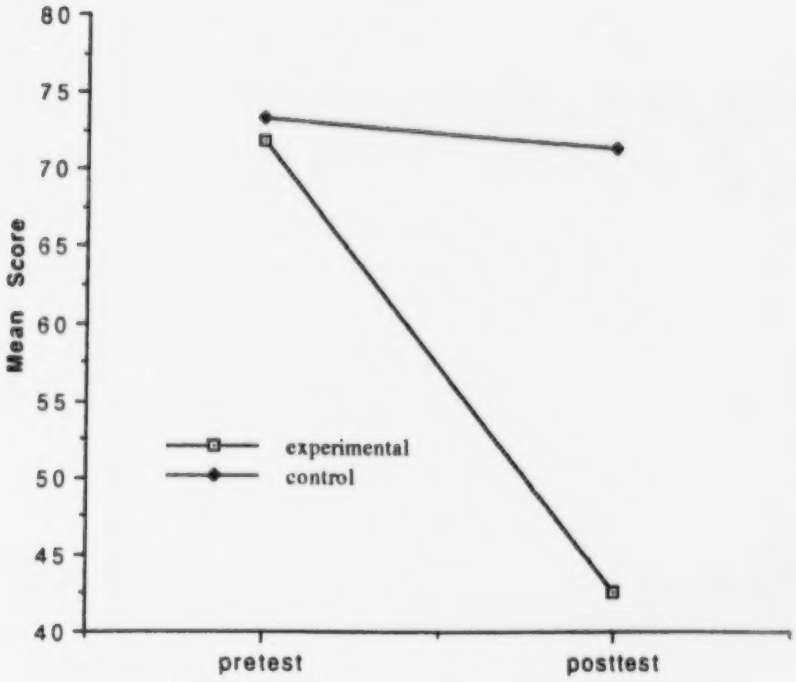

Figure 8. The interaction between test time and treatment group for the Teacher Placement Opinion Form.

only attended the seminars had a mean difference of .84 on the first standard (see Table 13). Continuing with standards 2-5, the mean differences for the experimentally supervised and those who only attended seminars were 3.00 and 1.00, 3.11 and 1.07, 3.22 and 1.08, and 2.89 and .93 respectively. The mean difference for all five standards for the supervised group were significantly higher ($p < .000, .0002, .0028, .0000, .0003$) respectively than the mean difference for those subjects who only attended seminars. Figure 10 illustrates that the mean differences for the experimental group were significantly greater than the mean differences for the group who was generally supervised.

The same t test procedure for the same purpose was used to analyze the mean difference for the Teacher Efficacy Scale and the Teacher Placement

Table 12

Means And Standard Deviations For Pre And Posttests Of The Teacher Placement Opinion Form

Experimental Group				Control Group			
Pretest		Posttest		Pretest		Posttest	
$\bar{X}$	S	$\bar{X}$	S	$\bar{X}$	S	$\bar{X}$	S
71.77	8.16	42.64	7.58	73.30	10.42	71.25	11.66

Interactions between experimental and control groups are plotted in Figure 9. The negative slope of the line displays the magnitude of increase for the experimental group and compares that increase to the increase of the control group. As with the Standards of Authentic Teaching and the Teacher Efficacy Scale the experimental group showed a greater increase than did the control group--this time in their attitude toward inclusive education.

Nested Study--Experimentally Supervised Group within Group

The purpose of this part of the study was to discover if a subset of the experimental group who were additionally supervised with a wholetheme approach to teaching would outperform the remainder of the group. In order to answer that question a nested study was conducted comparing the wholetheme supervised subset to the remaining subjects of the experimental group. The three raters of the open-ended questionnaire were in 100% agreement that the subset who was experimentally supervised wrote more thoroughly and descriptively than did those who only attended the seminars.

In addition, the mean differences of both subsets for each Likert-type scale were determined with a t test procedure. The subset who was coached had a mean difference between the first and last observation of 3.22 while those who

Table 13

Mean Difference Scores, Standard Deviations, Independent Group T-Test, And Probability For The Nested Study--Five Standards Of Authentic Teaching

Supervision:	Wholetheme		Normal			
Standard	$\bar{X}$	S	$\bar{X}$	S	t-test	P<
1	3.22	.67	.84	.80	-7.31	.0000
2	3.00	.86	1.00	1.08	-4.60	.0002
3	3.11	.93	1.07	1.61	-3.40	.0028
4	3.22	.83	1.08	.86	-5.81	.0000
5	2.89	.85	.93	1.14	-4.43	.0003

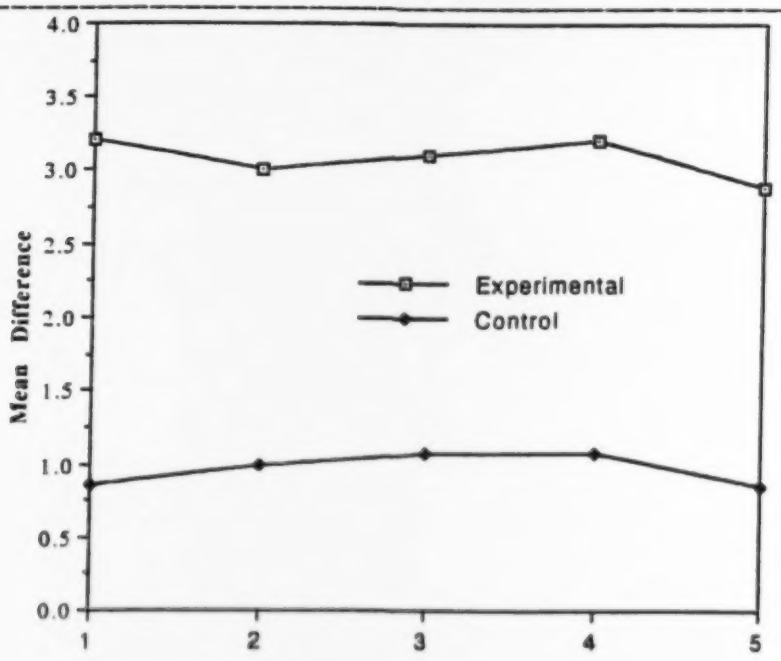

Figure 9. Mean differences for each of the 5 Standards of the Authentic Teaching Scale for the comparison between the experimental and control groups in the nested study.

Opinion Form. The subjects who were supervised with a focus on wholetheme did not report higher regard for the efficaciousness of schools in general, but they did report themselves as being more personally efficacious. (p <.17 and .01). The mean differences for those who were experimentally supervised compared to those who were traditionally supervised was -.24.00 and -17.76, and on the general component the mean differences were 29.00 and 26.38 (see Table 14).

Table 14

Pre And Posttest Mean Difference Scores, Standard Deviations, Independent Group T-Test, And Probability For The Nested Study--The Personal And General Components Of The Teacher Efficacy Scale

Supervision:	Wholetheme		Normal			
	$\bar{X}$	S	$\bar{X}$	S	t-test	P<
Personal	29.00	4.25	26.38	4.25	1.41	.17
General	-24.00	4.56	-17.76	5.61	-2.74	.01

The response to the last part of Research Question 6 is no. Results of the t test for the Teacher Placement Opinion Form showed that those of the experimental group who were individually supervised with a wholetheme approach had a mean difference score of -32.22, and the mean difference of the second group was -27.00; those scores were not significantly different (p < .10, see Table 15).

Table 15

Pre and Posttest Mean Difference Scores, Standard Deviations, Independent Group T-Test, And Probability For The Nested Study--Teacher Placement Opinion Form

Wholetheme Supervision		Normal Supervision			
$\bar{X}$	S	$\bar{X}$	S	t-test	P<
-32.22	4.82	-27.00	8.24	-1.70	.10

In review, data analysis for Research Question 6 reveals that the subset who was supervised with an emphasis on the wholetheme approach (a) did respond on an open-ended instrument more thoroughly than those who only attended seminars and (b) did demonstrate more authentic teaching on the Five Standards of Authentic Teaching. However, those same subjects (c) did not reveal a greater sense of personal or general efficacy, (d) nor were they more inclined toward inclusive beliefs.

Conclusion

The study demonstrated with every measure that seminars with an emphasis on wholetheme teaching would foster reorganization of knowledge and encourage future teachers to examine and reflect upon thier role. This research helps support the premise that seminars and supervision centered around a wholetheme approach to teaching can assist preservice novice teachers in creating authentic learning environments, increase personal and general confidence in teaching, and change beliefs about inclusive education. Such knowledge offers guidance for those consumed with restructuring public education. This research contributes to the building of an empirically validated

research foundation upon which program decisiions in teacher education can be based. Authentic teaching from a wholethemere prospective may be the one structure that will allow us to reach the educational goal of society--to educate all children.

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Authentic Teaching From A Wholetheme Prospective

ABSTRACT

This article reviews research designed to determine whether preservice novice teachers who attended seminars focusing on the wholetheme approach to teaching: (a) were better able to use authentic terminology to differentiate between teacher-teller and teacher-facilitator, (b) practiced more authentic teaching, (c) became more personally and generally efficacious, and (d) more willing to address diversity in classroom than those students in the control group who attended seminars focusing on the writing process. The study further considered whether a subset of the experimental group who additionally received supervision focused on the wholetheme approach to teaching would more articulately define authentic teaching, practice it to a greater extent, report themselves as more efficacious, and report themselves more willing to meet diversity in the classroom than those students who only attended the seminars. The analysis included 42 students and used two-way Anova (between group and time) to compare test results from four different instruments. Results indicate with every measure that a Teacher Education Program that reinforces authentic teaching through seminars and supervision can change students' belief systems as well as encourage and reinforce successful practice.